ITS Field Operational Test Summary

Operation Respond

FHWA Contact: Office of Motor Carrier Safety and Technology, ITS CVO Division, (202) 366-0950

Introduction

The Operation Respond ITS Field Operational Test demonstrates a hazardous material (HazMat) identification and tracking system called Operation Respond Emergency Information System (OREIS). The OREIS software system acts as a communications routing service between HazMat carriers and emergency response units. The project demonstrates several advanced communication and information handling technologies that provide faster information and improved capabilities to emergency response units. The goal of the test is to improve emergency response to hazardous material incidents involving motor carriers and/or railroads.

Operation Respond Inc., the not-for-profit organization developing the system, has installed the OREIS in several locations throughout the country and in Canada and Mexico. The organization is improving the operation of the system based on the experience of those installations. This Field Operational Test addresses the testing and evaluation of the system in Philadelphia, Pennsylvania, and Houston, Texas.

Test personnel are installing the OREIS software in Philadelphia. They also expect to integrate the software into the TranStar traffic management center in Houston beginning in March 1998.

Project Description

Operation Respond provides a central point of communication for the dissemination of HazMat information. Participating HazMat carriers (railroad and motor) establish a database of information about the identification and contents of their HazMat shipments. The database may also contain information about how to respond to an incident involving the shipment. Each shipment registered in the database has an identification code.

In the event of an incident or accident involving a registered shipment, police and fire personnel can quickly obtain details of the shipment involved. The units responding to the incident can identify the shipment either by the railroad car ID or motor carrier ID. The police or fire dispatcher calls the OREIS point of contact. The dispatcher supplies the shipment code and the OREIS software directs the request for information to the correct carrier database. The dispatcher then obtains the details of the shipment. Knowing the details of the shipment, the first responders can decide upon the appropriate response to the incident. Emergency response personnel can quickly request the appropriate equipment or materials necessary to contain, combat, or mitigate the effects of hazardous materials involved in the incident. Figure 1 presents a schematic of the system's operation.

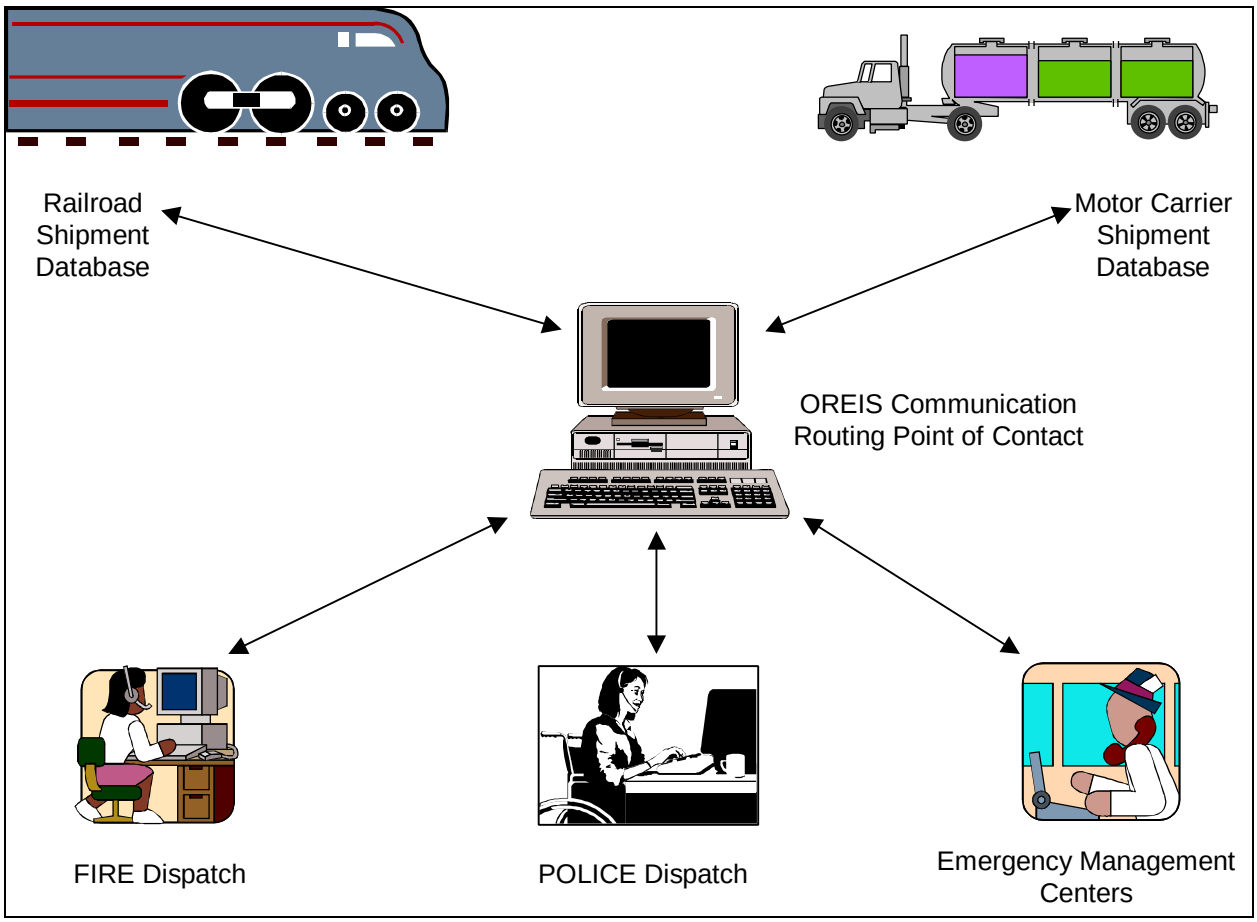

Figure 1: Operation Respond System Schematic

The Philadelphia and Houston operational tests are evaluating the system's ability to improve response time to HazMat incidents and to ensure that the appropriate organizations and equipment respond to the incident. The tests are also evaluating the system's ability to improve the accuracy of the response -- applying the appropriate treatment based on a better knowledge of the materials involved. In addition, the tests are examining the costs of implementation to both the public agencies and the transportation carriers.

Test Status

In Philadelphia, test participants are continuing to install the OREIS software in various emergency response centers. A draft evaluation plan has been completed. The Federal Railroad Administration will direct future evaluation efforts.

Houston was the site of the original Operation Respond installation. The project is returning to install the system at TranStar, the Houston regional traffic management and emergency response center. Both the installation and evaluation aspects of the Operation Respond system in Houston are in the preliminary planning stages.

Test Partners

Federal Highway Administration

Federal Railroad Administration

Operation Respond Institute, Inc.

References

Operation Respond Institute, Inc., "White Paper," January 1996

Office of Hazardous Materials Safety, Research and Special Programs Administration, Operation Respond: Lesson Learned, February 1997